

Manual

C2C caberQU v2.5k

USB C to USB C cable tester

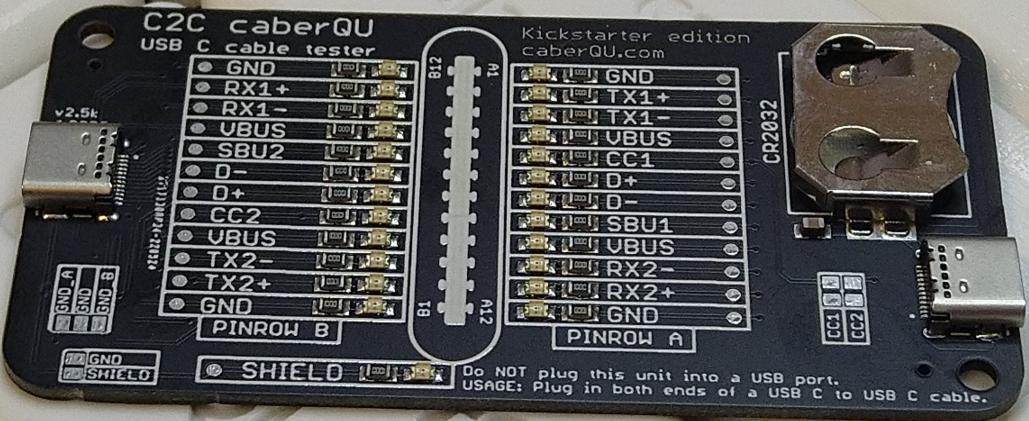


USB Type-C === USB Type-C

caberqu.com



Traunmüller



1. Safety notes

Please read these instructions carefully and observe all references made in these instructions to guarantee save, reliable use and a long life of the device. Keep this manual ready at hand and pass it on to other users of the device.

1.1. Intended use

This cable tester is intended exclusively for testing a single USB C to USB C cable for continuity of each USB C pin. A different use, or one going beyond this, is deemed as not intended and can lead to injuries and damages. Please note that serving and/or connection errors lie outside of our sphere of influence.

1.2. Safety instructions

The entire product may not be converted and/or changed. This product is not intended for commercial use or for medical and special applications, where the failure of the product can cause injuries, mortalities or considerable material damages. Claims of any kind due to damages from improper use or non-observance of safety instructions are excluded. This product is not a toy and may not be used by children. Remove packaging material from the reach of children. Children often underestimate dangers or do not recognize them at all. This device is not intended to be used by persons (including children) with restricted sensory, physical or mental abilities or lack of experience and/or knowledge, unless they are supervised by a person responsible for their safety or received instructions from the person on how to use the device and they have understood the resultant dangers. Only operate the device with a CR2032 battery. If the product is not used for a longer period, remove the battery. Don't put any object onto the device. Do not disassemble the device and do not try to repair it yourself. Do not insert any items, which are not intended for its use, into the openings of the product. This could lead to an electrical short-circuit and a resultant fire. Only use a dry cloth for this cleaning the device. Do not use the device when it shows visible damage. The device is sensitive to electrostatic discharge. Connect cables gently and slowly to save the connectors.

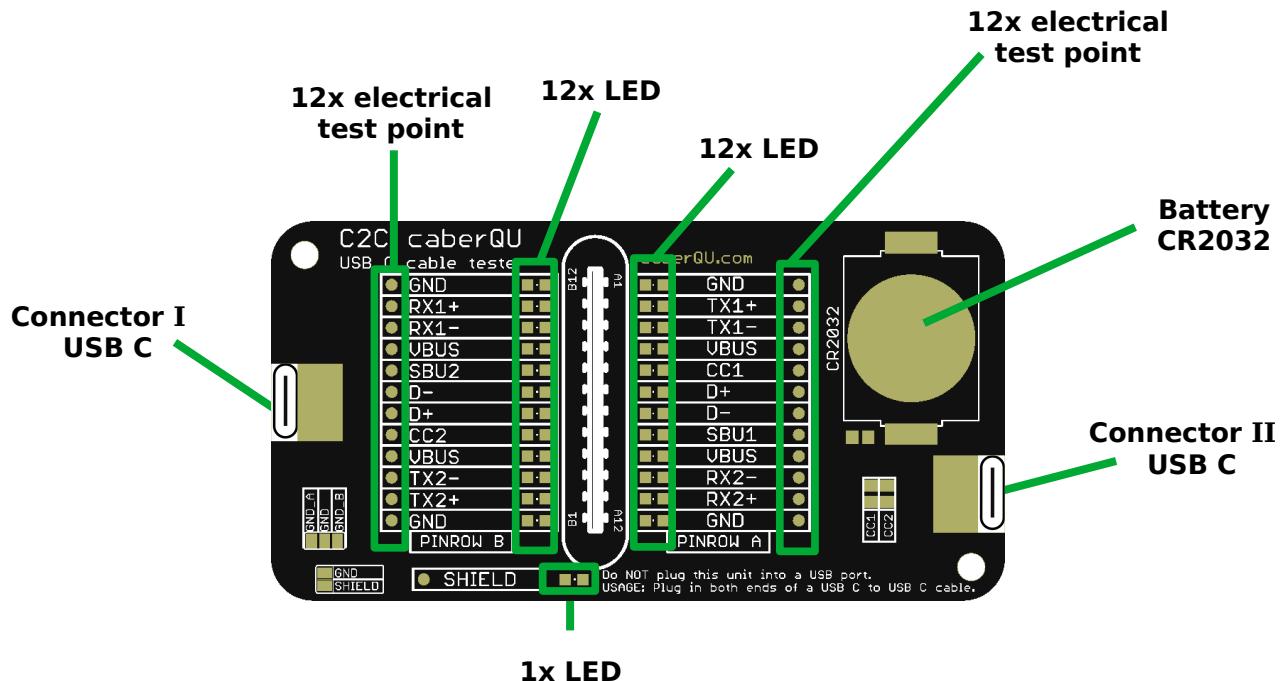
- Do not use the C2C caberQU cable tester if it is damaged.
- This device is only for use inside dry and clean rooms.
- This device must be protected from moisture, splash water and too high/low temperatures.
- Keep out of reach for children.
- Do not touch the device with anything electrically conductive.
- Do not connect the C2C caberQU cable tester to any kind of other device.
- Never connect the device to a live wiring.

2. Usage

Battery insertion

Only use 3V CR2032 batteries. Insert a fresh CR2032 battery carefully and fully into the holder. The positive contact (+) needs to be on top.

3. Device overview

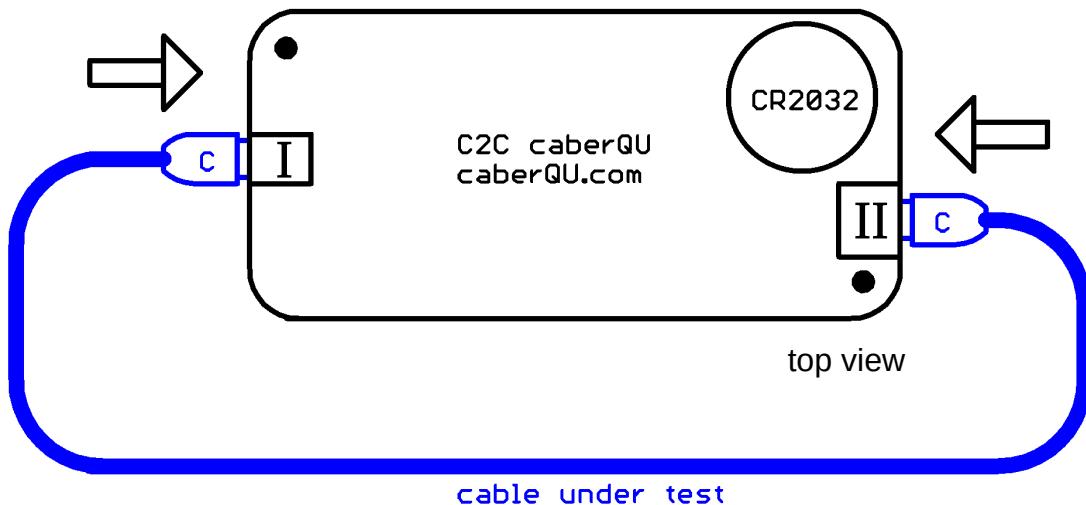


4. Measurement

Insert both ends of a USB C to USB C cable into the C2C caberQU. This will make each LED which has any of the pins of connector II connected to connector I light up. Pins which have a resistor attached in the cable internally will make the corresponding LED light up less intense.

The cable tester can not detect short circuits in between different pins, special function cables including diodes or any cables with active electronics.

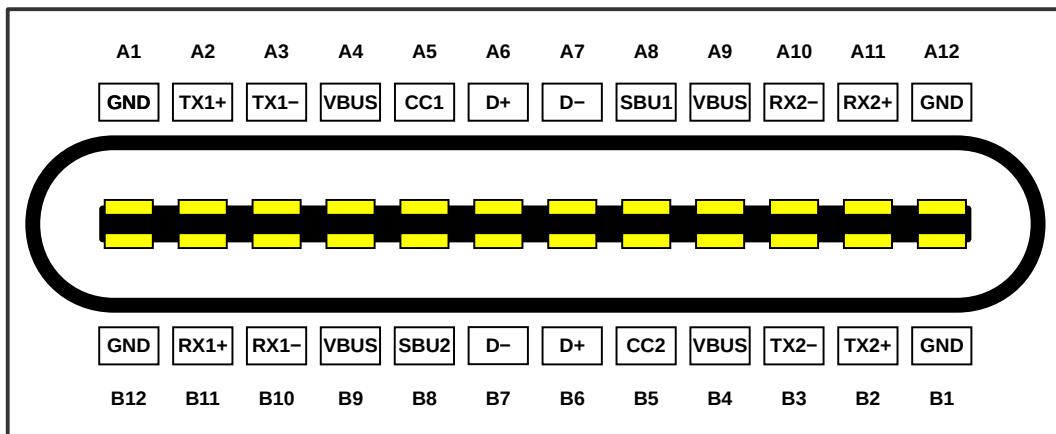
The C2C caberQU does not consume any power while no cable is connected.



5. Useful LED combinations

The LEDs for the corresponding pins need to light up to make sure the desired mode is available. Please note that shorted pins, diodes, active electronics or other faults/things inside the cable can provide false results. Options A and B are for the two possible connector I orientations and can be inverted by flipping the cable at connector I.

If D+ and D- are connected, they only light up on one side of the tester. This is for compatibility with older USB connector generations and can be inverted by flipping connector I.



USB C receivable pinout (front view)

Sources: <https://en.wikipedia.org/wiki/USB-C>
<https://commons.wikimedia.org/wiki/User:Chindi.ap>

USB Power Delivery

Option A: V_{BUS} | GND | CC1 | Shield

Option B: V_{BUS} | GND | CC2 | Shield

USB 2.0/1.1

Option A: V_{BUS} | GND | D+ | D- | Shield

USB 3.0/3.1/3.2/4

Single lane (3.0/3.1)

Option A: V_{BUS} | GND | TX1+ | RX1+ | TX1- | RX1- | Shield

Option B: V_{BUS} | GND | TX2+ | RX2+ | TX2- | RX2- | Shield

Dual lane (3.2/4)

Option A: V_{BUS} | GND | TX1+ | RX1+ | TX1- | RX1- | TX2+ | RX2+ | TX2- | RX2- | Shield

Debug Accessory Mode

Option A: V_{BUS} | GND | D+ | D- | CC1 | S_{BU1} | TX1+ | RX1+ | TX1- | RX1- | Shield

Option B: V_{BUS} | GND | D+ | D- | CC2 | S_{BU2} | TX2+ | RX2+ | TX2- | RX2- | Shield

Alternate Mode

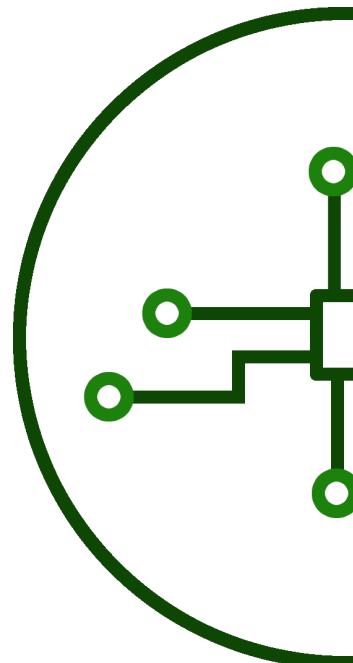
Option A: V_{BUS} | GND | TX1+ | RX1+ | TX1- | RX1- | Shield

Option B: V_{BUS} | GND | TX2+ | RX2+ | TX2- | RX2- | Shield

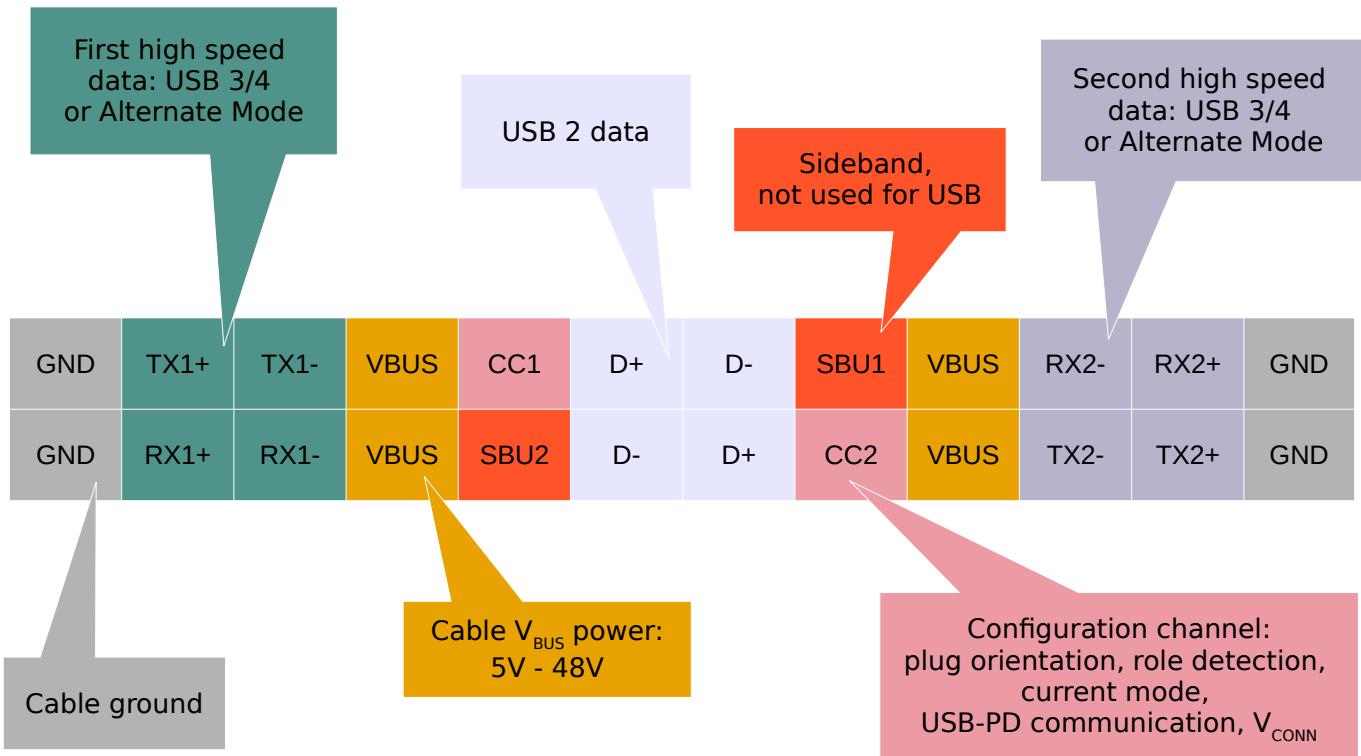
Audio Adapter Accessory Mode

Option A: GND | CC1 | CC2 | SBU1 | SBU2 | D+ | D- | Shield

V_{BUS} is optional for concurrent charging of a device.

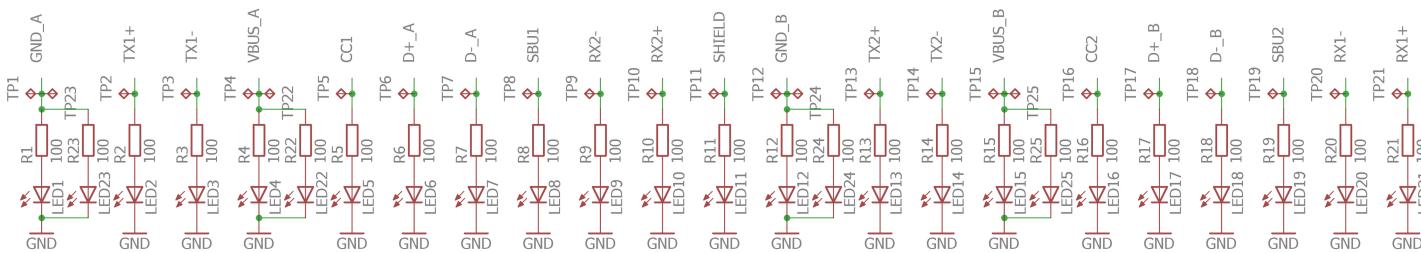


6. USB C connector summary

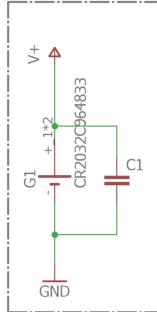


7. Schematics

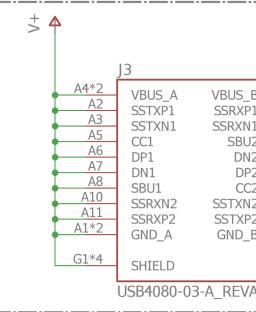
LEDs



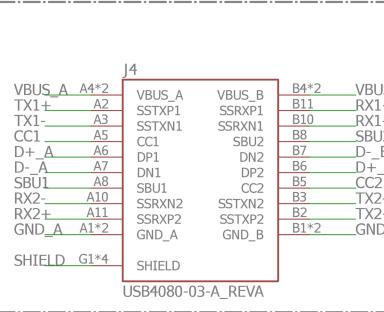
CR2032 Battery



USB C



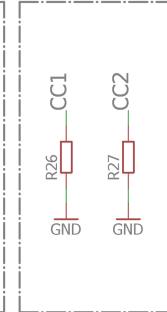
USB C

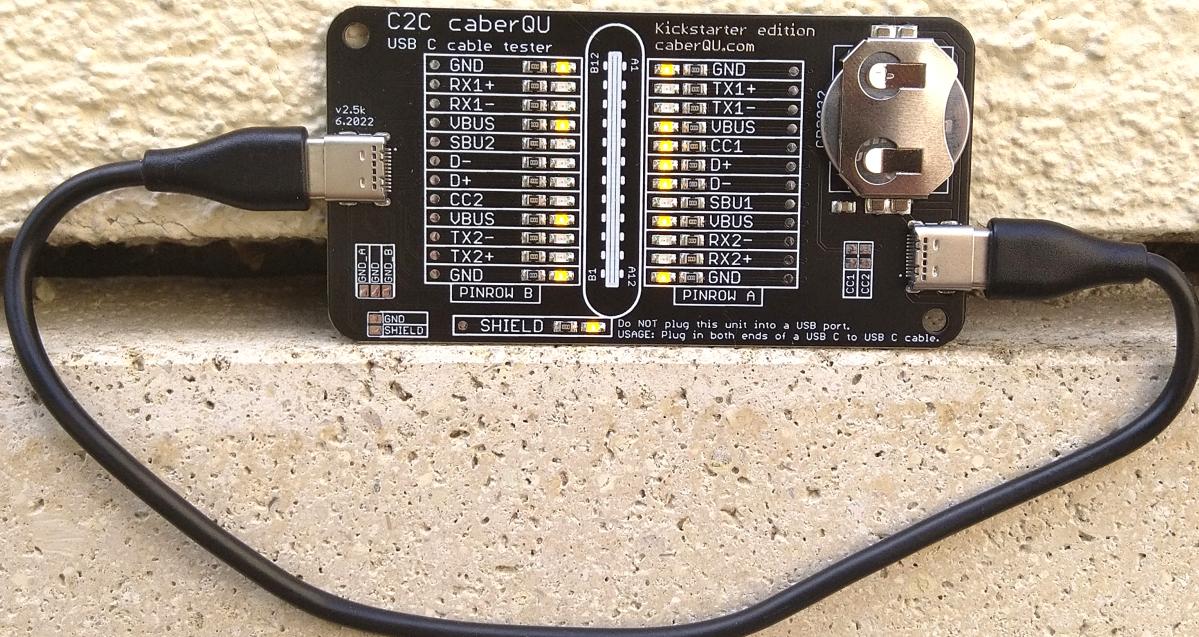


Optional grounding



CC1 & CC2





8. Warranty

- We as the manufacturer have no influence on installation, therefore warranty of the product only applies to the product.
- Please contact your dealer and provide your sales slip, if any fault or damage is detected on your device.
- **Alternatively you can contact us directly:**
Peter Traunmüller eU, Arnleitnerweg 13, 4020 Linz, AUSTRIA, Tel: +4369981148006, E-Mail: info@caberqu.com, Web: caberqu.com
- We as the manufacturer are not liable for damages to persons or property caused by improper installation or operation not described in this manual.
- Any use other than described in this user manual is not permitted, and causes loss of warranty, loss of guarantee, and non-liability.
- We reserve our right for misprints and changes of the device, packing, or user manual.

Exclusion of liability:

The firmware and/or hardware may be changed at any time without prior notice. It is possible that parts of these instructions, technical data and images in this manual differ partly from the product in your possession. All points described in these instructions only serve the purpose of clarification and must not inevitably correspond to a certain situation. Legal claims cannot be made on the basis of this manual.

Troubleshooting:

Problem	Solution
The tester does not work.	Use the right battery with right polarity. Replace battery as described.
Which pins have to be connected?	Read the possible pinout combinations.
Other questions?	Contact your dealer or visit caberqu.com for more info.

Technical data:

Dimensions: 87x45x5.5 mm

Weight without battery: 16 g

Battery type: CR2032 - 3V

Battery lifetime: approx. 2 years at 1 test per day 10 sec. each

Operational and storage temperature:
+5°C to +35°C

Relative humidity: max. 90 %



Disposal of old batteries:

Devices marked with this symbol are subject to the European Directive 2006/66/EC. All old batteries must be disposed of separate from the municipal waste stream via designated collection facilities appointed by the government or the local authorities. You avoid environmental damage with the proper disposal.



Disposal of old electronic equipment:

Devices marked with this symbol are subject to the European Directive 2012/19/EC. All electrical appliances and old electrical appliances must be disposed of separate from the municipal waste stream via designated collection facilities appointed by the government or the local authorities. You avoid environmental damage with the proper disposal of old electrical equipment.



With the CE sign we ensure, that the product conforms to the basic standards and directives.



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